

WHAT IS CLAIMED IS:

- 1           1. A method, comprising:  
2           determining at a storage device that a current media status has changed; and  
3           transmitting an asynchronous message to a host system as a result of the  
4           determination, wherein the asynchronous message can also be transmitted for a reason  
5           other than a current media status change.
- 1           2. The method of claim 1, wherein the asynchronous message is associated with a  
2           serial advanced technology attachment interface.
- 1           3. The method of claim 2, wherein the asynchronous message is associated with a  
2           set device bits packet.
- 1           4. The method of claim 1, wherein the determining is performed while the  
2           storage device is in a lower-power state.
- 1           5. The method of claim 4, wherein the reduced power state is a sleep state.
- 1           6. The method of claim 1, further comprising:  
2           receiving from the host system a command to adjust a power state associated with  
3           the storage device.

1           7. The method of claim 1, further comprising:  
2           receiving from the host system a query for a current media status; and  
3           transmitting to the host system an indication of the current media status.

1           8. The method of claim 7, wherein the current media status indicates at least one  
2           of: (i) an absence of a removable storage media, and (ii) a presence of a removable  
3           storage media.

1           9. The method of claim 1, wherein the storage device comprises at least one of:  
2           (i) a compact disc drive, (ii) a digital versatile disk drive, (iii) a tape drive, and (iv) a  
3           removable hard disk drive.

1           10. An apparatus, comprising:  
2           a detection unit to determine a change in a current media status at a storage  
3           device; and  
4           an interface unit to transmit an asynchronous message to a host system as a result  
5           of the determination, wherein the asynchronous message can also be transmitted for a  
6           reason other than a current media status change.

1           11. The apparatus of claim 10, wherein the interface unit is a serial advanced  
2           technology attachment interface.

1           12. An apparatus, comprising:  
2           a storage medium having stored thereon instructions that when executed by a  
3           machine result in the following:

4                   determining at a storage device that a current media status has changed,  
5           and

6                   transmitting an asynchronous message to a host system as a result of the  
7           determination, wherein the asynchronous message can also be transmitted for a  
8           reason other than a current media status change.

1           13. The apparatus of claim 12, wherein execution of the instructions further  
2   results in:

3                   receiving from the host system a query for a current media status, and  
4                   transmitting to the host system an indication of the current media status.

1           14. The apparatus of claim 13, wherein the current media status indicates at least  
2   one of: (i) an absence of a removable storage media, and (ii) a presence of a removable  
3   storage media.

1           15. A method, comprising:

2                   receiving at a host system an asynchronous message from a storage device as a  
3   result of a current media status change, wherein the asynchronous message can also be  
4   received for a reason other than a current media status change; and

5                   arranging for a power state associated with the storage device to be adjusted as a  
6   result of the asynchronous message.

1           16. The method of claim 15, further comprising:

2                   transmitting to the storage device a query for a current media status; and

3                   receiving from the storage device an indication of the current media status.

1           17. The method of claim 15, wherein the arranging comprises:  
2           transmitting to the storage device a command to adjust the power state.

1           18. The method of claim 15, wherein the asynchronous message is associated  
2           with a serial advanced technology attachment interface.

1           19. The method of claim 18, wherein the asynchronous message is associated  
2           with a set device bits packet.

1           20. The method of claim 19, further comprising:  
2           generating an interrupt to a storage device driver in response to the asynchronous  
3           message.

1           21. An apparatus, comprising:  
2           a storage medium having stored thereon instructions that when executed by a  
3           machine result in the following:  
4                 receiving at a host system an asynchronous message from a storage device  
5                 as a result of a current media status change, wherein the asynchronous message  
6                 can also be received for a reason other than a current media status change, and  
7                 arranging for a power state associated with the storage device to be  
8                 adjusted as a result of the asynchronous message.

1           22. The apparatus of claim 21, wherein execution of the instructions further  
2 results in:  
3                   transmitting to the storage device a query for a current media status, and  
4                   receiving from the storage device an indication of the current media status.

1           23. The apparatus of claim 22, wherein the current media status indicates at least  
2 one of: (i) an absence of a removable storage media, and (ii) a presence of a removable  
3 storage media.

1           24. A system, comprising:  
2                   a host processor; and  
3                   a disk drive, wherein the disk drive is to transmit asynchronous message to the  
4 host processor indicating that a current disk status has changed, wherein the  
5 asynchronous message can also be transmitted for a reason other than a change in the  
6 current disk status.

1           25. The system of claim 24, wherein a power state associated with the disk drive  
2 is adjusted as a result of the asynchronous message.

1           26. A storage device driver method, comprising:  
2                   receiving at a storage device driver an asynchronous notification indicating that a  
3 current media status associated with a storage device has changed;  
4                   determining a current media status in response to the received indication; and  
5                   arranging for the current media status to be provided to an operating system.

1           27. The method of claim 26, wherein said arranging comprises:  
2           caching the current media status;  
3           receiving a synchronous poll request from an operating system; and  
4           responding to the synchronous poll request in accordance with the cached current  
5           media status.

1           28. The method of claim 26, wherein said arranging comprises:  
2           passing an asynchronous indication of the current media status to the operating  
3           system.

1           29. A storage device driver apparatus, comprising:  
2           a storage medium having stored thereon instructions that when executed by a  
3           machine result in the following:  
4                 receiving at a storage device driver an asynchronous notification  
5                 indicating that a current media status associated with a storage device has  
6                 changed,  
7                 determining a current media status in response to the received indication,  
8                 and  
9                 arranging for the current media status to be provided to an operating  
10            system.

1           30. The apparatus of claim 29, wherein said arranging comprises:  
2           caching the current media status,  
3           receiving a synchronous poll request from an operating system, and

4                    responding to the synchronous poll request in accordance with the cached  
5                    current media status.

1                    31. The apparatus of claim 29, wherein said arranging comprises:  
2                    passing an asynchronous indication of the current media status to the operating  
3                    system.

1                    32. An operating system method, comprising:  
2                    receiving from a storage device driver an asynchronous indication of a current  
3                    media status associated with a storage device and removable media; and  
4                    performing an action in response to the asynchronous indication.

1                    33. The method of claim 32, wherein the action comprises determining whether  
2                    information stored on the removable media should be provided to a user.

1                    34. An operating system apparatus, comprising:  
2                    a storage medium having stored thereon instructions that when executed by a  
3                    machine result in the following:  
4                                       receiving from a storage device driver an asynchronous indication of a  
5                                       current media status associated with a storage device and removable media, and  
6                                       performing an action in response to the asynchronous indication.

1                    35. The apparatus of claim 34, wherein the action comprises determining whether  
2                    information stored on the removable media should be provided to a user.

1           36. A method, comprising:  
2           determining at a storage device that an event has occurred; and  
3           transmitting an asynchronous message to a host system as a result of the  
4           determination, wherein the asynchronous message can also be transmitted for a reason  
5           other than an occurrence of the event.

1           37. The method of claim 36, wherein the event is associated with at least one of:  
2           (i) activation of a button, and (ii) an overheating condition.